



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/596,993	09/06/2006	Rainer Muller	A8396PCT-UT	4258
43749 7590 09/30/2009 CHRISTOPHER PARADIES, PH.D. FOWLER WHITE BOGGS BANKER, P.A. 501 E KENNEDY BLVD, STE. 1900 TAMPA, FL 33602			EXAMINER BLACK, MELISSA ANN	
			ART UNIT 3612	PAPER NUMBER
			MAIL DATE 09/30/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/596,993	Applicant(s) MULLER ET AL.	
	Examiner MELISSA A. BLACK	Art Unit 3612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 May 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 12 and 19-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4, 12 and 19-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 May 2009 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to Amendments and remarks filed May 28, 2009. Claims 1-4, 12 and 19-35 are currently pending in the application and rejected as set forth below.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-4, 12 and 19-35 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Drawings filed on May 28, 2009 contain new matter. Figure 1, in particular contains internal wall (23), external wall (25) and the claimed space between the walls and the insulation. The specification as originally filed fails to specifically disclose how large the space is and the orientation of the insulation with in the walls.

Drawings

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the *intermediate space* between *internal paneling* and *an external skin* of the *vehicle* of claims 1, 2 and 19, *zigzagged* or *curved* of claim 27, *sinusoidal* or *cosinusoidal* of claim 28, and *a curvature of the external skin* of claim

Art Unit: 3612

29, the vertical course of the plurality of barrier layers is delimited by two inner vertically diametrically opposed and horizontally positioned boundary faces of at least two insulation regions of claim 25, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 1-4, 12 and 19-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat # 6,565,040 to Fay et al in view of US Pat # 3,567,162 to Lea.

Art Unit: 3612

Re Claim 1, Fay et al discloses an insulation structure for the internal insulation of a vehicle, comprising an insulation package (30), implemented using an insulation, and a film (26) positioned next to external skin (28), wherein the insulation package (30) is constructed using distinct insulation regions (See Figures 1-3), which are implemented using a first insulation (24) whose insulation material is burn-through safe, and a second insulation (22) whose insulation material is burn-through unsafe, these insulation regions being positioned along a finite series and laid next to one another up to a final insulation region (See Figures 1-3), whose insulation material is exchanged in alternating sequence. Re Claim 2, Fay et al discloses the insulation package (30) is implemented homogeneously using a second insulation (22), whose insulation material is burn-through unsafe, in which a plurality of burn-through safe barrier layers (24) are integrated. RE Claim 4, Fay et al discloses a second insulation region, which is implemented using the burn-through unsafe insulation material (22) of the second insulation, is laid next to each of a first and a third insulation region (see figure 3) , which are equipped with the burn-through safe insulation material of the first insulation (24), and following the third and each further insulation region, which are equipped with the burn-through safe insulation material of the first insulation (24), a further insulation region is positioned, which is equipped with the burn-through unsafe insulation material of the second insulation (see figure 3). Re claim 12, Fay et al discloses wherein the plurality of burn-through safe barrier layers (24) are implemented using a material of high fire resistance, which is implemented as sufficiently resistant or insensitive to occurring fire or both, because of which propagation of the fire, which would flame against a surface region of the barrier layer in this situation, is prevented. Re Claims 34

Art Unit: 3612

and 35, Fay discloses that the insulation package is completely enveloped by the film (26, column 2, lines 51-53).

Fay et al fails to show the insulation package is positioned inside an intermediate space between internal paneling and the external skin of the vehicle.

Lea teaches the use of an insulation package (10) between an internal paneling (24) and an external skin (18) of the vehicle (see figure 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the internal paneling as taught by Lea on the device of Fay in order to protect the insulation package from damage during everyday wear and tear.

Re Claim 3, Fay et al, as modified fails to disclose wherein a first insulation region and an insulation region terminating the series are implemented using the insulation material of the first insulation.

It would have been obvious to one with ordinary skill in the art at the time the invention was made to start and finish the insulation package with the same first insulation for it is a mere rearrangements of known parts and requires little to no skill in the art.

Re Claim 19, Fay et al discloses an insulation structure for the internal insulation of a vehicle subject to accidental exposure of the vehicle to a fire external to the vehicle, the insulation structure comprising an insulation package with an external skin of the vehicle, and the insulation package comprises: at least one barrier layer; at least one insulation region; and a film providing an external surface of the insulation package, wherein the at least one insulation region is not capable of preventing burn-through of the fire, and the at least one barrier layer is

Art Unit: 3612

capable of preventing burn-through of the fire, and the at least one barrier layer is positioned such that the insulation package is made burn through safe. Re claim 20, Fay et al discloses as wherein each of the at least one barrier layer is comprised of at least one burn-through safe (24). Re Claim 21, Fay et al discloses at least one barrier layer is integrated in the at least one insulation region (see figures). Re Claim 22, Fay et al discloses two barriers layers (24). Re Claim 23, Fay et al discloses wherein at least one insulation region (22) is disposed between the to barrier layers (24). Re claim 24, Fay et al discloses that the barrier layers lead without interruption through the at least one insulation region and up to a peripheral edge of at least one insulation region (see Abstract). Re Claim 25, Fay et al discloses the use of vertical course of the plurality of barrier layers (24) is delimited by two inner vertically diametrically opposed and horizontally positioned boundary faces of at least two insulation regions (22) (see abstract). Re Claim 26, Fay et al disclose that the barrier layers (24) lead close to or press against two outer boundary faces of the at least one insulation region (22), the two outer boundary faces being horizontally diametrically opposing and vertically positioned. Re Claim 29, Fay et al disclose that the insulation package (20) is shaped to a curvature of the external skin (28) (see figures 1-3). Claims 30-33, Fay et al discloses the film and the at least one barrier layer is of a fire resistant material or fireproof fibrous material (see Columns 3-4), and the material is of a ceramic, a carbon, a silicate or combination thereof (column 4, lines 20-25), and wherein the film is completely enveloped by the film (column 3 line 4).

Re Claim 19, Fay et al fails to disclose the insulation package is positioned inside an intermediate space between internal paneling and the external skin of the vehicle.

Art Unit: 3612

Lea teaches the use of an insulation package (10) between an internal paneling (24) and an external skin (18) of the vehicle (see figure 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the internal paneling as taught by Lea on the device of Fay in order to protect the insulation package from damage during everyday wear and tear.

Re Claims 27 and 28, Fay et al fails to disclose that the insulation package is implemented as straight or zigzagged, or sinusoidal or cosinusoidal.

Lea teaches that the insulation package is implemented as straight or zigzagged, or sinusoidal or cosinusoidal (see Figure 1).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to made the package implemented as straight or zigzagged, or sinusoidal or cosinusoidal as taught by Lea on the device of Fay et al in order to thicken the insulation layer in between the external and inner panel furthermore it is a mere design choice.

Response to Arguments

6. Applicant's arguments filed 5/28/09 have been fully considered but they are not persuasive. Drawings contain new matter, please see 112 rejection above. Specifically as pointed out by applications remarks that paragraph [0016] discloses the intermediate space and the two walls, the specification fails to disclose in detail how the insulation package is arranged between the two walls, as cited prior art does, therefore it is new matter in the drawings.

7. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on

Art Unit: 3612

obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). In this case, Fay et al discloses the insulation package is used in aircraft fuselages (column 1 lines 10-22) and also shows the insulation package is positioned against the outside skin (28) of an airplane fuselage (30), but Fay fails to disclose the internal paneling of the airplane fuselage, wherein Lea teaches and discloses an insulation package that is disclosed in an intermediate space of an external paneling and an internal paneling. Lea's insulation contains a fire-resistant material (abstract) that is in an airplane fuselage, which further makes Lea a teaching that a fire-resistant material/insulation package is known to be made in the straight or zigzagged, or sinusoidal or cosinusoidal construction. Lea is used as a mere teaching of an interior paneling and the design choice of the insulation inside the intermediate space between the interior paneling and external paneling. As to applicant argument that Lea's material is "fluffy" and made to unfold, it would be obvious that even if a crack or puncture in the wall would not occur during a crash the material would still obtain its fire-resistant property in the wall and insulate against fire.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 3612

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MELISSA A. BLACK whose telephone number is (571)272-4737. The examiner can normally be reached on M-F 7:00-3:30 ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Dayoan can be reached on (571) 272-6659. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/596,993

Page 10

Art Unit: 3612

/M. A. B./

Examiner, Art Unit 3612

/GLENN DAYOAN/

Supervisory Patent Examiner, Art Unit 3612